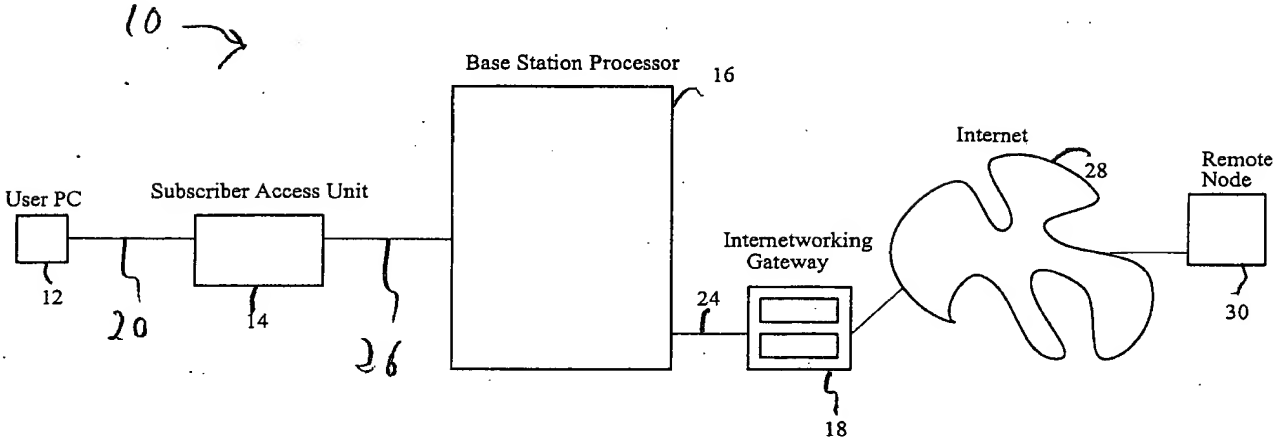
10
Base Station Processor
16
Internet
28
Remote Node
User PC
Subscriber Access Unit
Internetworking Gateway
12
20
14
26
24
18
30

Fig. 1

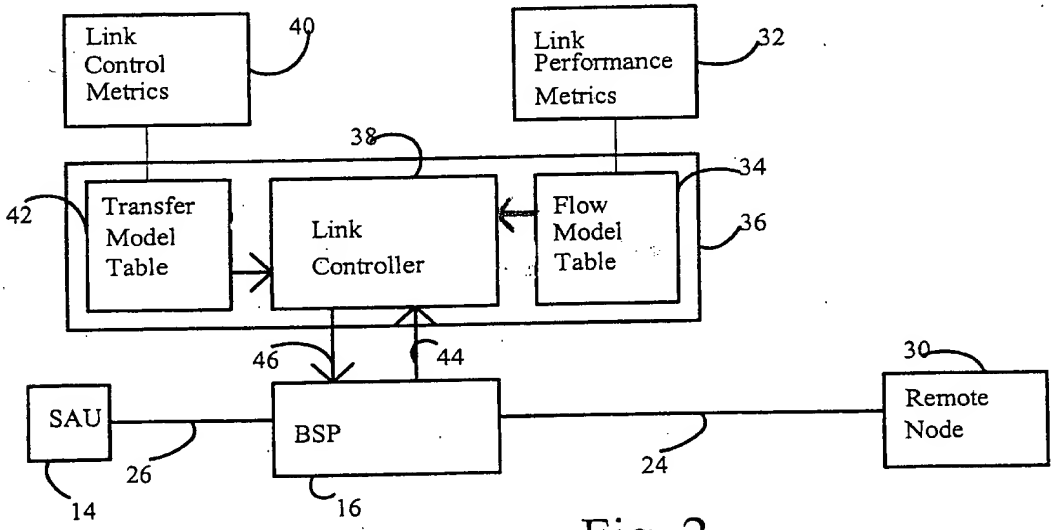
Link Control Metrics
40
Link Performance Metrics
32
38
34
42
Transfer Model Table
Link Controller
Flow Model Table
36
46
44
30
SAU
BSP
Remote Node
26
24
14
16

Fig. 2

Flow Model Table

Flow Model Idx	Protocol Id	Well-Known Port Number	RTP Payload Type	Application Id	Trans Model Idx
F1	tcp	80	nil	www	T10
F2	udp	69	nil	tftp	T20
F3	udp	7070	audio	realaudio	T30
⋮					
Fn					

Fig. 3

TRANSFER MODEL TABLE

Trans. Model ID	Modulation Type	ARQ Disable	Coding Rate	Min Sugg. BW	Avg. Sugg. BW	Max Sugg. BW	Delay	Jitter
T10		N						
T20		N		48K	64K	80K		
T30		Y		28K	32K	40K		
⋮								
Tn								

Fig. 4

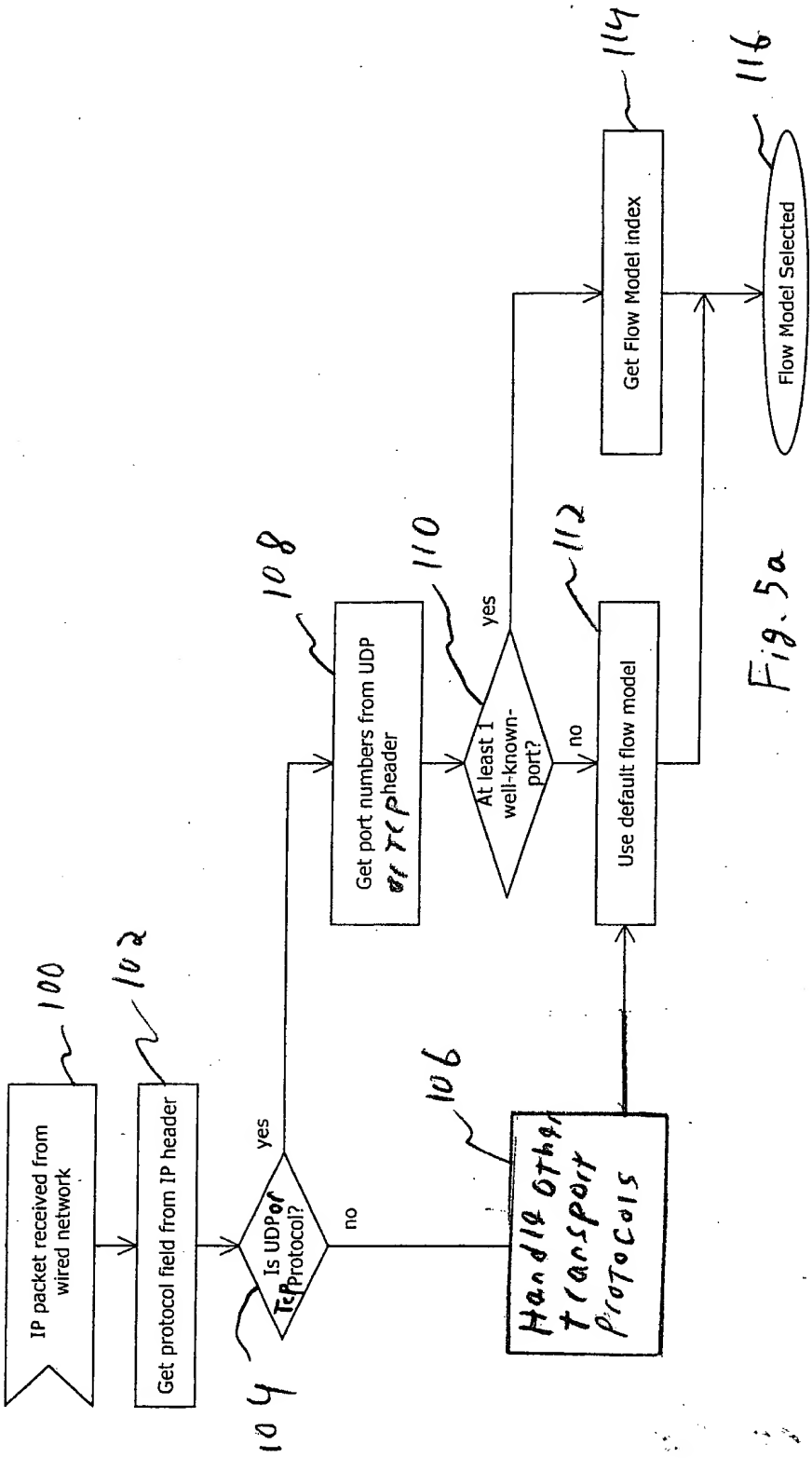
IP packet received from wired network
100
Get protocol field from IP header
102
Is UDP or TCP protocol?
104
yes
no
Get port numbers from UDP or TCP header
108
At least 1 well-known-port?
110
yes
no
Use default flow model
112
Handle other transport protocols
106
Get Flow Model index
114
Flow Model Selected
116

Fig. 5a

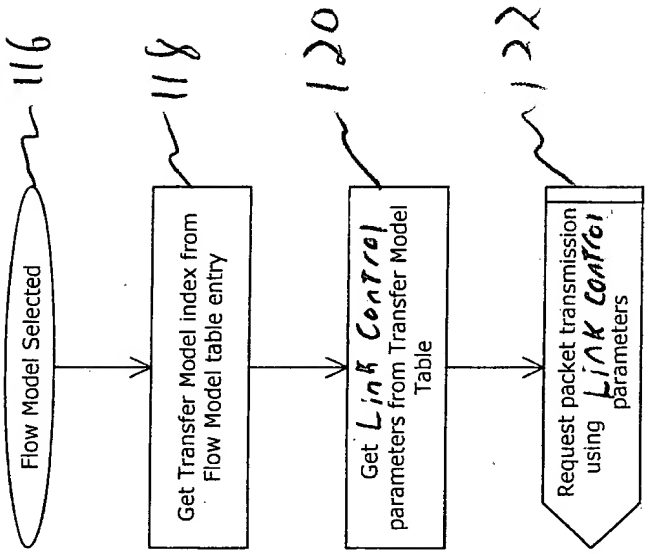
116
Flow Model Selected
118
Get Transfer Model index from Flow Model table entry
120
Get Link Control parameters from Transfer Model Table
122
Request packet transmission using Link Control parameters

Fig 5b

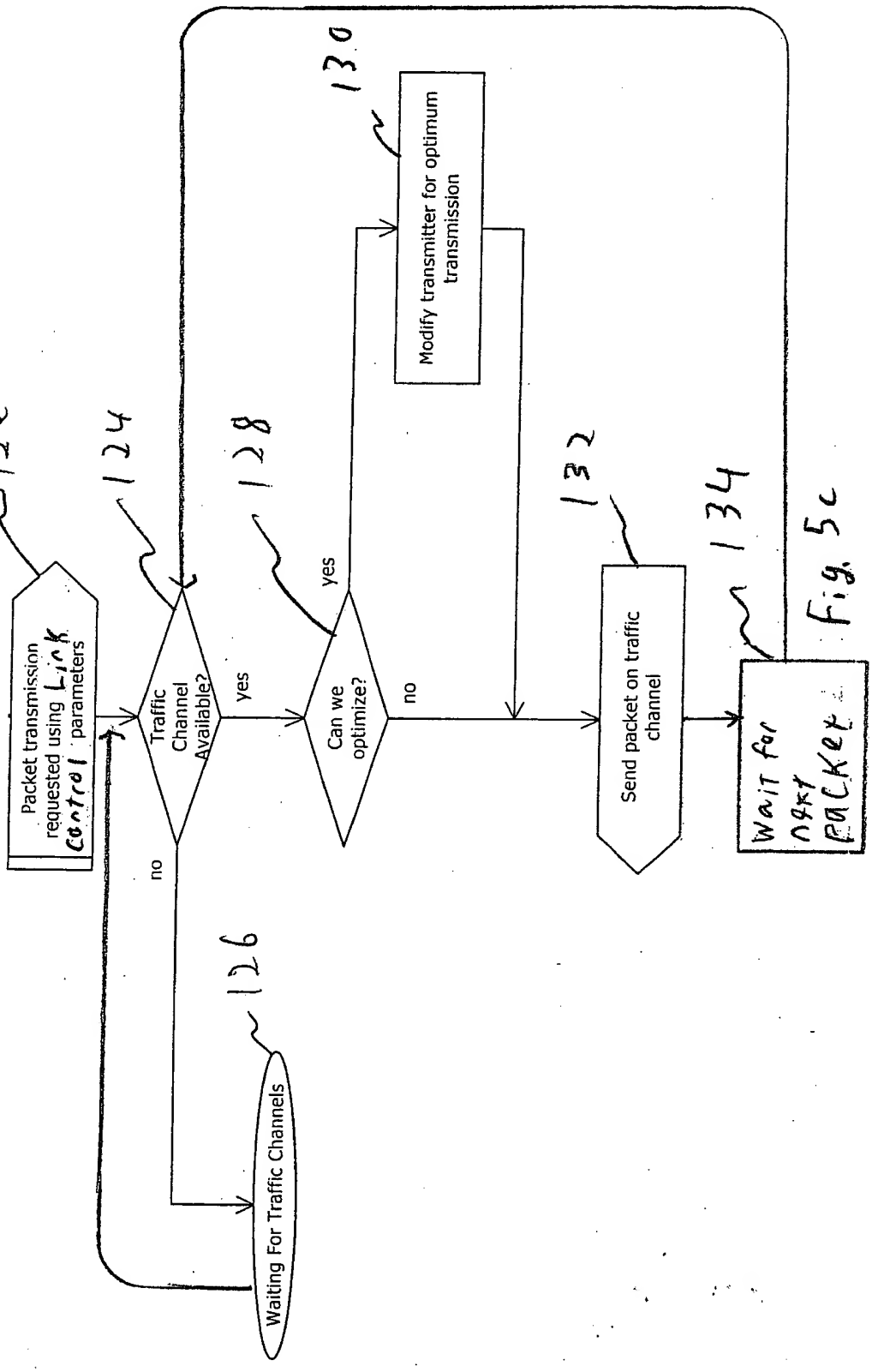
Packet transmission requested using Link Control parameters
122
Traffic Channel Available?
124
yes
no
Can we optimize?
128
yes
no
Modify transmitter for optimum transmission
130
Waiting For Traffic Channels
126
Send packet on traffic channel
132
Wait for next PACKET
134

Fig. 5c

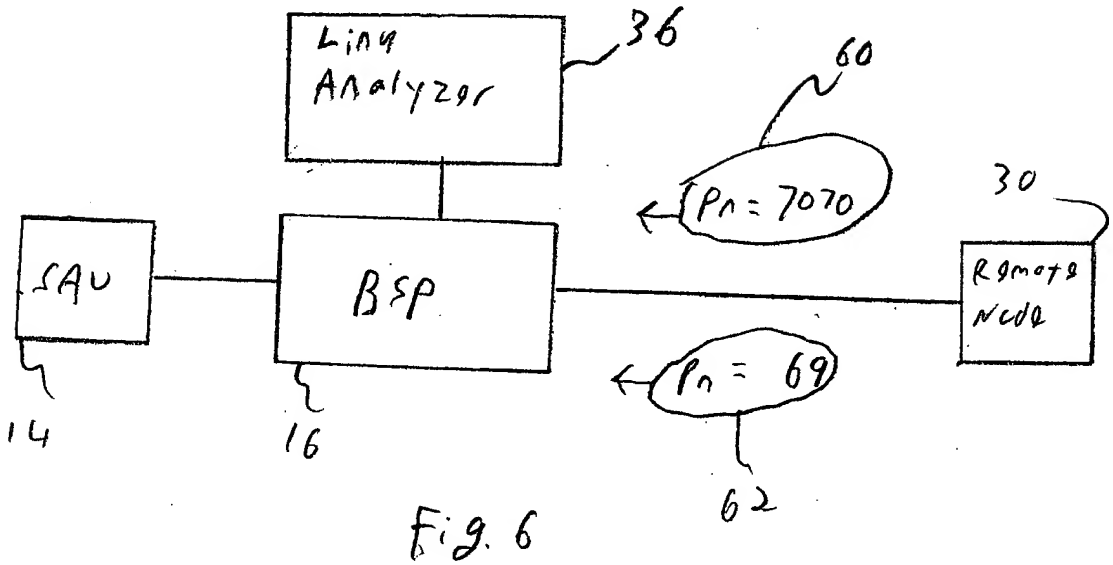
Line Analyzer
36
60
Pn = 7070
30
SAU
BSP
Remote Node
Pn = 69
14
16
62

Fig. 6

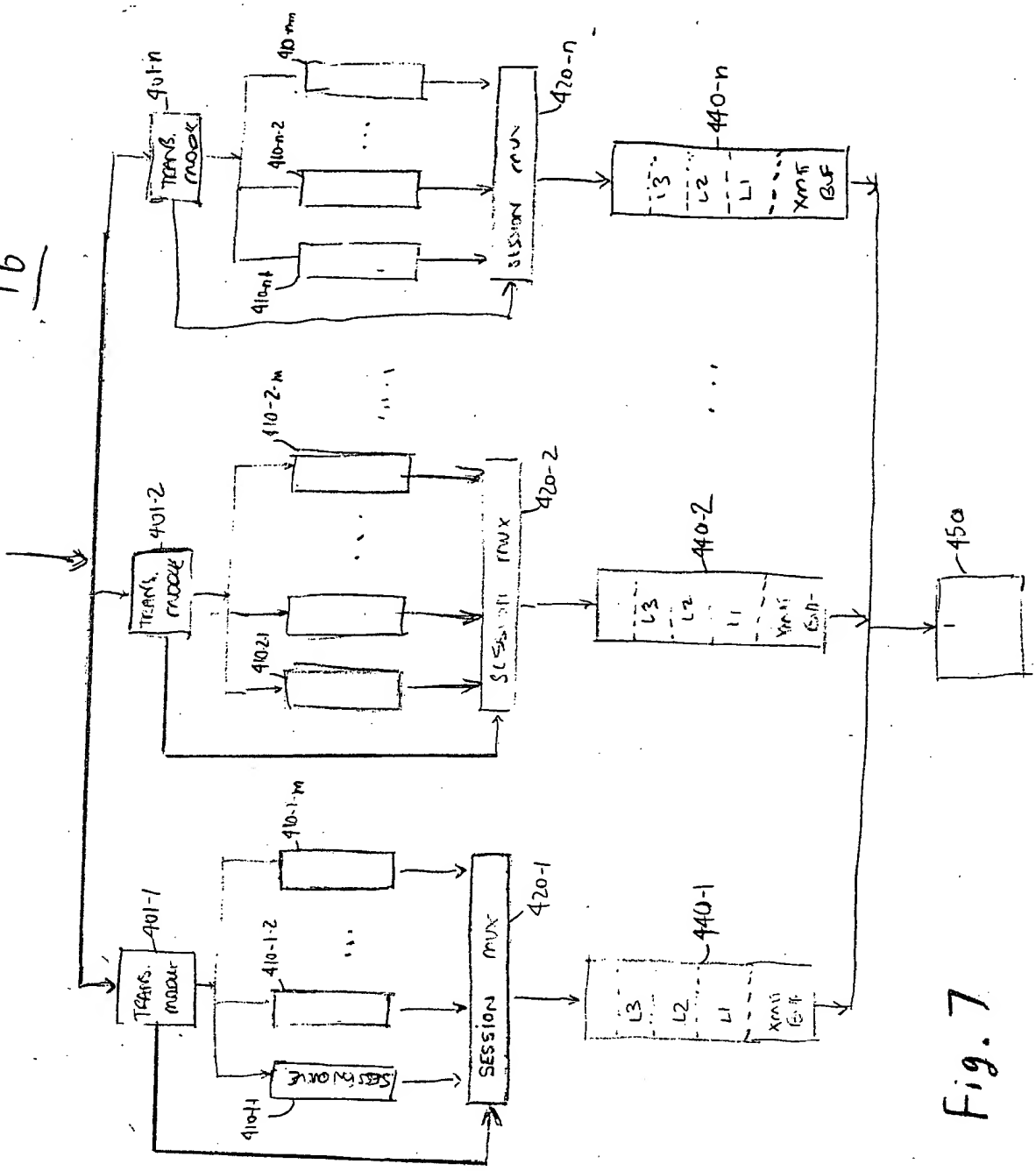
401-n
TRANS. module
410-n
410-n-2
410-n-1
SESSION mux
420-n
440-n
L3
L2
L1
XMIT BUF
410-2-m
401-2
TRANS. module
410-2-1
SESSION mux
420-2
440-2
L3
L2
L1
XMIT BUF
450
410-1-m
401-1
TRANS. module
410-1-2
410-1-1
SESSION mux
420-1
440-1
L3
L2
L1
XMIT BUF

Fig. 7